

REMARKS

Claims 3-5, 8-10, 12-20, 24, and 27-35 are pending. By this Amendment, claims 1-2, 6-7, 11, 21-23, 25, and 26, are cancelled, and claims 3-5, 8-10, 12, 24, 27, 28, 30, 31 and 32 are amended. No new matter is introduced by the present Amendment.

Applicants incorporate by reference the comments from the Amendment After Final of December 20, 2004. Applicants thank the Examiner for the comments in the Advisory Action of April 13, 2005.

Interview Summary

A telephone interview was conducted with Examiner Mohamed on about May 10, 2005. The subject of the interview was dependent claims 6 and 17. No conclusion was reached with respect to the patentability of the claims. Instead, the Examiner invited Applicants to further point out how the pending claims distinguish over the cited art. To that end, and solely to expedite issuance of the patent, this Amendment has been prepared.

Rejections Under 35 U.S.C. § 103(a)

1. Rejection of claims 1, 2, 5, 8-12, 24-27 under 35 U.S.C. § 103(a) as being unpatentable over Hubbell et al. (U.S. Patent No. 5,410,106)

In the Final Office Action dated September 22, 2004, the Examiner rejected claims 1, 2, 5, 8-12, 24-27 under 35 U.S.C. § 103(a) as being unpatentable over Hubbell et al. (U.S. Patent No. 5,410,106). The Examiner has asserted that the photosensitive dyes used to initiate polymerization in Hubbell et al. provide a visualization agent. Applicants have indicated that the dyes used in Hubbell et al. are photosensitive dyes used for photoinitiation and thus are consumed during the polymerization process. In the advisory action of April 13, 2005, the

Examiner stated that there is no factual evidence or data to address what percentages the polymerization process consumes the visualization agents. Thus, there is agreement that a portion of the dyes of Hubbell et al. are consumed during the process of photopolymerizing precursors to form the hydrogel.

With respect to independent claim 24, Applicants submit that Hubbell et al. does not teach or suggest the claimed composition for coating a tissue of patient comprising biocompatible means for visualization, wherein the visualization means cause a visually observable change that indicates that a hydrogel has been formed on the tissue of a patient at a predetermined thickness. More specifically, as discussed above, the dyes employed in the compositions of Hubbell et al. are used to initiate polymerization, which results in consumption of at least a portion of the dye in the composition. Any visual change caused by the dye of Hubbell et al. will not be correlated with any particular thickness of the hydrogel, since the amount of unconsumed dye present can vary depending upon arbitrary polymerization conditions such as the duration of exposure to the polymerizing light source as affected by the choice of light source and its distance from the tissue, intensity of the light source, and the thickness of the precursor composition. In contrast, Applicants' invention, as claimed in independent claim 24, is directed to a composition, wherein the visualization means causes a visually observable change when the composition at a predetermined thickness is applied to the tissue of patient to form a hydrogel. Since Hubbell et al. does not teach or suggest this feature of Applicants' claimed invention, Hubbell et al. does not render Applicants' invention, as claimed in independent claim 24, prima facie obvious.

Rejection of claims 2-4, 6-8, 12-20, 23, 26, and 28-35 under 35 U.S.C. § 103(a) as being unpatentable over Hubbell et al. in view of Rhee et al. (U.S. Patent No. 5,874,500).

In the Final Office Action dated September 22, 2004, the Office Action rejected claims 2-4, 6-8, 12-20, 23, 26, and 28-35 under 35 U.S.C. § 103(a) as being unpatentable over Hubbell et al. in view of Rhee et al. (U.S. Patent No. 5,874,500). The Examiner asserted that Rhee teaches the employment of crosslinked polymer compositions formed from an electrophile/nucleophile reaction, while Hubbell et al. teaches the use of dyes in crosslinked hydrogels.

With respect to independent claim 13, that claim relates to a method of preparing a hydrogel composition comprising mixing reactive precursor species comprising nucleophilic functional groups, reactive precursor species comprising electrophilic functional groups and a visualization agent. The claimed electrophilic-nucleophilic reaction does not include photopolymerization. Applicants submit that there is no motivation to combine Hubbell et al. with Rhee et al. because the dyes used in Hubbell et al. are photosensitive dyes used to initiate polymerization. In the absence of photopolymerization, Hubbell et al. does not teach or suggest a reason to put a visualization agent into a hydrogel. Therefore Hubbell et al. does not teach or suggest using a visualization agent with the polymer compositions of Rhee et al., which are generally unrelated to photopolymerization. With respect to the imaging agents in Rhee et al., as discussed in the Response filed on December 20, 2004, those agents are used to facilitate visualization by X-ray or MRI and are not the claimed visualization agents; accordingly, the agents of Rhee et al. do not supply the claimed element of a visualization agent.

Moreover, Rhee et al. teaches away from using a visualization agent in the hydrogels of Rhee et al. As discussed in the Response filed on December 10, 2004, a feature of the Rhee gels

is that “the crosslinked polymer compositions are optically clear, making the compositions and methods of the invention particularly well suited for use in ophthalmic applications.” See Rhee patent at Column 3, lines 27-32. In other words, introducing a dye or other visualization agent into the compositions of the Rhee patent would reduce the clearness of the compositions. Thus, an ordinary artisan would understand that use of dye, as in Hubbell et al., is not desirable in the hydrogels of Rhee et al. Since Rhee et al. teaches that a dye is not desirable with a hydrogel of Rhee et al., there is no motivation to combine Hubbell et al, with Rhee et al.

With respect to independent claim 28, that claim relates to a method of formulating a polymer composition comprising selecting a concentration of visualization agent for the polymer composition such that the visualization agent causes a visually observable change that indicates that a crosslinked hydrogel has been formed on the tissue of a patient having a predetermined thickness. Neither Hubbell et al. nor Rhee et al. disclose or suggest a method of formulating a polymer composition comprising selecting a concentration of a visualization agent such that the visualization agent causes a visually observable change that indicates that a crosslinked hydrogel has been formed on the tissue of a patient having a predetermined thickness.. Since neither Hubbell et al nor Rhee et al, either alone or in combination, disclose or suggest this feature of Applicants’ claimed invention, the combination Hubbell et al. and Rhee et al. does not render Applicants’ invention, as claimed in independent claim 28, prima facie obvious.

With respect to claim 30, neither Hubbell et al. nor Rhee et al. disclose or suggest a method of formulating a polymer composition comprising selecting a concentration of visualization agent for the polymer composition such that the visualization agent causes a visually observable change that indicates that a crosslinked hydrogel has been formed on the

tissue of a patient having a predetermined thickness, wherein the observable change is not being able to see the substrate through the polymer composition.

With respect to claim 31, neither Hubbell et al. nor Rhee et al. disclose or suggest a method of formulating a polymer composition comprising selecting a concentration of visualization agent for the polymer composition such that the visualization agent causes a visually observable change that indicates that a crosslinked hydrogel has been formed on the tissue of a patient having a predetermined thickness, wherein the observable change is not being able to see patters in a substrate surface through the polymer composition.

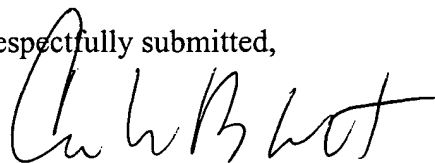
Since neither Hubbell et al. nor Rhee et al. disclose or suggest these features of Applicants' claimed invention, the combination of Hubbell et al. and Rhee et al. does not render Applicant's invention, as claimed in claims 30 and 31, prima facie obvious.

CONCLUSION

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "C. B. Herbert", written in a cursive style.

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